

REMARKS/ARGUMENTS

New claim 5 corresponds to claim 3 and new claim 6 corresponds to allowable claim 4, with formal amendments designed to conform more closely to U. S. practice. Claim 6 is believed to be in condition for allowance.

Claim 5 is respectfully submitted neither to be anticipated under 35 U.S.C. 102(e) by Kawada et al, cited, nor to be obvious therefrom. The claimed synchronous machine provides a simple and dependable braking means by providing for the power breakers of the two half-bridges to be controllable alternatingly by a control device in dependence on the difference between a set value of the braking moment and an actual value of the short-circuit current.

According to the present invention, both the half-bridge for the positive half-waves as well as the half-bridge for the negative half-waves of the power converter are short-circuiting elements, which assures an improved thermal load on the power breakers. Braking is thus produced in a very simple manner by the power converter, which is usually under high thermal stress, and an optionally provided braking resistor. A set value for the short circuit can be provided by controlling the short circuit so that the desired braking moment may be readily

achieved. In this way, the braking moment may be held constant over the entire operating range of the motor, and it is also possible to brake at any rotary moment and thus to avoid an excessive increase in the short circuit.

Nothing in Kawada et al suggests alternately to control the power breakers of two half-bridges of a power converter, which short-circuit the armature windings, to brake a synchronous machine in the claimed manner. Kawada et al selectively short-circuit individual armature windings to control and vary the braking moment. According to the invention, on the other hand, all the windings are alternately short-circuited in the same manner. In view of the above, claim 5 is respectfully submitted to be patentable.

A sincere effort having been made to overcome all grounds of rejection, favorable reconsideration and allowance of claims 5 and 6 are respectfully solicited.

Respectfully submitted,
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